

AMENDMENTS TO THE CLAIMS

1-6. (Canceled).

7. (Currently Amended) A method of driving an electromagnetic pump, the method comprising:

conveying a fluid from a pump chamber formed inside a cylinder by housing a plunger including a permanent magnet inside the cylinder;

passing a current through an aircore electromagnetic coil fitted around the cylinder, and switching a direction of the current, to reciprocally move the plunger in the axial direction inside the cylinder; and

~~applying a pulse voltage or~~ flowing a pulse current including a period where a voltage or current value is zero when ~~the polarity of a driving voltage or~~ a supplied current of the electromagnetic coil is inverted,

wherein ~~the pulse voltage or the pulse current flows so that~~ a minute voltage pulse of current at least 30% of a maximum voltage is applied or a minute current pulse at least 30% of a maximum current flows before the period an inverted maximum current flows for a minute time period before the period where the ~~voltage or~~ current value is zero, when a polarity of the applied current of the electromagnetic coil is inverted.

8. (Canceled)

9. (Currently Amended) A method of driving an electromagnetic pump, the method comprising:

conveying a fluid from a pump chamber formed inside a cylinder by housing a plunger including a permanent magnet inside the cylinder;

passing a current through an aircore electromagnetic coil fitted around the cylinder, while switching a direction of the current, to reciprocally move the plunger in the axial direction inside the cylinder; and

~~applying a pulse voltage or flowing a pulse current so that~~ flowing an offset voltage current of no greater than 30% of ~~a~~ an inverted maximum ~~voltage is applied or an offset current of~~ no greater than 30% of a maximum current flows current when ~~the~~ a polarity of a driving voltage or a supplied current of the electromagnetic coil is inverted.

10. (Currently Amended) The method of driving an electromagnetic pump according to Claim 9, wherein ~~the pulse voltage is applied or the pulse current flows so that before a period where the offset voltage is applied or the offset current flows, a minute voltage pulse of at least 30% of the maximum voltage is applied or a minute current pulse of at least 30% of the maximum current flows~~ before a period where the offset current flows, a minute current pulse at least 30% of the maximum current flows.